

Sequence Listing

<110> Desnoyers,Luc

Eaton,Dan L.

Goddard,Audrey

Godowski,Paul J.

Gurney,Austin L.

Pan,James

Stewart,Timothy A.

Watanabe,Colin K.

Wood,William I.

Zhang,Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
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 Gln Thr Gly Gly Leu Pro Pro Asp Cys Ser Lys Cys Cys His Gly
 35 40 45
 Asp Tyr Ser Phe Arg Gly Tyr Gln Gly Pro Pro Gly Pro Pro Gly
 50 55 60
 Pro Pro Gly Ile Pro Gly Asn His Gly Asn Asn Gly Asn Asn Gly
 65 70 75
 Ala Thr Gly His Glu Gly Ala Lys Gly Glu Lys Gly Asp Lys Gly
 80 85 90
 Asp Leu Gly Pro Arg Gly Glu Arg Gly Gln His Gly Pro Lys Gly
 95 100 105
 Glu Lys Gly Tyr Pro Gly Ile Pro Pro Glu Leu Gln Ile Ala Phe
 110 115 120
 Met Ala Ser Leu Ala Thr His Phe Ser Asn Gln Asn Ser Gly Ile
 125 130 135
 Ile Phe Ser Ser Val Glu Thr Asn Ile Gly Asn Phe Phe Asp Val
 140 145 150

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Thr	Phe	Ser	Met	Met	Lys	His	Glu	Asp	Val	Glu	Glu	Val	Tyr	Val
				170						175				180
Tyr	Leu	Met	His	Asn	Gly	Asn	Thr	Val	Phe	Ser	Met	Tyr	Ser	Tyr
				185						190				195
Glu	Met	Lys	Gly	Lys	Ser	Asp	Thr	Ser	Ser	Asn	His	Ala	Val	Leu
				200						205				210
Lys	Leu	Ala	Lys	Gly	Asp	Glu	Val	Trp	Leu	Arg	Met	Gly	Asn	Gly
				215						220				225
Ala	Leu	His	Gly	Asp	His	Gln	Arg	Phe	Ser	Thr	Phe	Ala	Gly	Phe
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gggagtaaaa gtggattact tgactccaga cttccctagt ctctcgatc 300
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Gly	Asn	Tyr	Met	Trp	Asp	Pro	Thr	Thr	Asn	Lys	Ser	Phe	Asp	Ile
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Gly	Val	Asn	Lys	Asp	Ser	Leu	Met	Pro	Leu	Trp	Trp	Asn	Gly	Ser

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				140					145					150
Pro	Thr	Tyr	Cys	Leu	Glu	Tyr	Lys	Asn	Val	Pro	Thr	Asp	Ile	Asn
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				170					175					180
Arg	Ala	Asp	Leu	Ala	Ala	Ile	Tyr	His	Glu	Arg	Ile	Asp	Val	Glu
				185					190					195
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				215					220					225
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His	Gly	Met	Thr	Asp	Ile	Phe	Trp	Met	Asp	Lys	Val	Ile	Glu	Leu
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				260					265					270
Gly	Pro	Val	Val	Ser	Leu	Trp	Pro	Ala	Pro	Gly	Lys	His	Ser	Glu
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Ile	Tyr	Asn	Lys	Leu	Ser	Thr	Val	Glu	His	Met	Thr	Val	Tyr	Glu
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Lys	Glu	Ala	Ile	Pro	Ser	Arg	Phe	Tyr	Tyr	Lys	Lys	Gly	Lys	Phe
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Val	Ser	Pro	Leu	Thr	Leu	Val	Ala	Asp	Glu	Gly	Trp	Phe	Ile	Thr
				320					325					330
Glu	Asn	Arg	Glu	Met	Leu	Pro	Phe	Trp	Met	Asn	Ser	Thr	Gly	Arg
				335					340					345
Arg	Glu	Gly	Trp	Gln	Arg	Gly	Trp	His	Gly	Tyr	Asp	Asn	Glu	Leu
				350					355					360
Met	Asp	Met	Arg	Gly	Ile	Phe	Leu	Ala	Phe	Gly	Pro	Asp	Phe	Lys
				365					370					375
Ser	Asn	Phe	Arg	Ala	Ala	Pro	Ile	Arg	Ser	Val	Asp	Val	Tyr	Asn
				380					385					390
Val	Met	Cys	Asn	Val	Val	Gly	Ile	Thr	Pro	Leu	Pro	Asn	Asn	Gly
				395					400					405

Ser	Trp	Ser	Arg	Val	Met	Cys	Met	Leu	Lys	Gly	Arg	Ala	Gly	Thr
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Ala	Pro	Pro	Val	Trp	Pro	Ser	His	Cys	Ala	Leu	Ala	Leu	Ile	Leu
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			20						25					30
His	Gly	Thr	Pro	His	Cys	Tyr	Ser	Ala	Glu	Glu	Leu	Pro	Leu	Gly
			35						40					45
Gln	Ala	Pro	Pro	His	Leu	Leu	Ala	Arg	Gly	Ala	Lys	Trp	Gly	Gln
			50						55					60
Ala	Leu	Pro	Val	Ala	Leu	Val	Ser	Ser	Leu	Glu	Ala	Ala	Ser	His
			65						70					75
Arg	Gly	Arg	His	Glu	Arg	Pro	Ser	Ala	Thr	Thr	Gln	Cys	Pro	Val
			80						85					90
Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser
			95						100					105
Ile	Ser	Pro	Trp	Arg	Tyr	Arg	Val	Asp	Thr	Asp	Glu	Asp	Arg	Tyr
			110						115					120
Pro	Gln	Lys	Leu	Ala	Phe	Ala	Glu	Cys	Leu	Cys	Arg	Gly	Cys	Ile
			125						130					135
Asp	Ala	Arg	Thr	Gly	Arg	Glu	Thr	Ala	Ala	Leu	Asn	Ser	Val	Arg
			140						145					150
Leu	Leu	Gln	Ser	Leu	Leu	Val	Leu	Arg	Arg	Arg	Pro	Cys	Ser	Arg
			155						160					165
Asp	Gly	Ser	Gly	Leu	Pro	Thr	Pro	Gly	Ala	Phe	Ala	Phe	His	Thr
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Ser Val

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gggacgtgga tgaactcggg gtgg 24

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tatccacaga agctggcctt cgccgagtgc ctgtgcagag 40

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agccatatgg tgtcaccagt gcacgggctt cggagggtgc tcccatggat 150
ccagatgcct gagggactcc acccactgtg tcaccactgc caccggggtc 200
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				20					25					30	
Phe	Gly	Gly	Cys	Ser	His	Gly	Ser	Arg	Cys	Leu	Arg	Asp	Ser	Thr	
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His	Cys	Val	Thr	Thr	Ala	Thr	Arg	Val	Leu	Ser	Asn	Thr	Glu	Asp	
				50					55					60	
Leu	Pro	Leu	Val	Thr	Lys	Met	Cys	His	Ile	Gly	Cys	Pro	Asp	Ile	
				65					70					75	
Pro	Ser	Leu	Gly	Leu	Gly	Pro	Tyr	Val	Ser	Ile	Ala	Cys	Cys	Gln	
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Thr	Ser	Leu	Cys	Asn	His	Asp									
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<210> 18
 <211> 273
 <212> PRT
 <213> Homo Sapien

<400> 18
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 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe
 35 40 45
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala
 50 55 60
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala
 65 70 75
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro
 80 85 90
 Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg
 95 100 105
 Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln
 110 115 120
 Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp
 125 130 135
 Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln
 140 145 150
 Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp
 155 160 165
 Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

	170	175	180
Glu Pro Glu Ile	Asn Pro Thr Ala Pro	Val Glu Lys Pro Tyr	Leu
	185	190	195
Thr Asn Gln Pro	Gly Asp Thr His Gln	Asn Val Val Val Thr	Glu
	200	205	210
Ala Gly Ile Ile	Pro Asn Leu Ile Tyr	Val Val Ile Pro Thr	Ile
	215	220	225
Pro Leu Leu Leu	Leu Ile Leu Val Ala	Phe Gly Thr Cys Cys	Phe
	230	235	240
Gln Met Leu His	Lys Ser Lys Gly Arg	Thr Lys Thr Ser Pro	Asn
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Gln Ser Thr Leu	Trp Ile Ser Lys Ser	Thr Arg Lys Glu Ser	Gly
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Met Glu Val

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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 19
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<210> 20
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 20
 accacattct gatgggtgtc tcctgg 26

<210> 21
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 21
 ggggtccctac ctttaccagt ggaatgatga caggtgtaac atgaagcac 49

<210> 22
 <211> 3824

<212> DNA

<213> Homo Sapien

<400> 22

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gcgtgaaggg cacagaccgc cttgtgaatg tctttctggg cattccattt 200
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aataaatctt gctactgccc aaaa 3824

<210> 23
<211> 571
<212> PRT
<213> Homo Sapien

<400> 23
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Val Cys Leu Leu Leu Ala Cys Pro Ala Thr Ala Thr Gly Pro Glu
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Val Ala Gln Pro Glu Val Asp Thr Thr Leu Gly Arg Val Arg Gly
35 40 45
Arg Gln Val Gly Val Lys Gly Thr Asp Arg Leu Val Asn Val Phe

				50					55					60
Leu	Gly	Ile	Pro	Phe 65	Ala	Gln	Pro	Pro	Leu 70	Gly	Pro	Asp	Arg	Phe 75
Ser	Ala	Pro	His	Pro 80	Ala	Gln	Pro	Trp	Glu 85	Gly	Val	Arg	Asp	Ala 90
Ser	Thr	Ala	Pro	Pro 95	Met	Cys	Leu	Gln	Asp 100	Val	Glu	Ser	Met	Asn 105
Ser	Ser	Arg	Phe	Val 110	Leu	Asn	Gly	Lys	Gln 115	Gln	Ile	Phe	Ser	Val 120
Ser	Glu	Asp	Cys	Leu 125	Val	Leu	Asn	Val	Tyr 130	Ser	Pro	Ala	Glu	Val 135
Pro	Ala	Gly	Ser	Gly 140	Arg	Pro	Val	Met	Val 145	Trp	Val	His	Gly	Gly 150
Ala	Leu	Ile	Thr	Gly 155	Ala	Ala	Thr	Ser	Tyr 160	Asp	Gly	Ser	Ala	Leu 165
Ala	Ala	Tyr	Gly	Asp 170	Val	Val	Val	Val	Thr 175	Val	Gln	Tyr	Arg	Leu 180
Gly	Val	Leu	Gly	Phe 185	Phe	Ser	Thr	Gly	Asp 190	Glu	His	Ala	Pro	Gly 195
Asn	Gln	Gly	Phe	Leu 200	Asp	Val	Val	Ala	Ala 205	Leu	Arg	Trp	Val	Gln 210
Glu	Asn	Ile	Ala	Pro 215	Phe	Gly	Gly	Asp	Leu 220	Asn	Cys	Val	Thr	Val 225
Phe	Gly	Gly	Ser	Ala 230	Gly	Gly	Ser	Ile	Ile 235	Ser	Gly	Leu	Val	Leu 240
Ser	Pro	Val	Ala	Ala 245	Gly	Leu	Phe	His	Arg 250	Ala	Ile	Thr	Gln	Ser 255
Gly	Val	Ile	Thr	Thr 260	Pro	Gly	Ile	Ile	Asp 265	Ser	His	Pro	Trp	Pro 270
Leu	Ala	Gln	Lys	Ile 275	Ala	Asn	Thr	Leu	Ala 280	Cys	Ser	Ser	Ser	Ser 285
Pro	Ala	Glu	Met	Val 290	Gln	Cys	Leu	Gln	Gln 295	Lys	Glu	Gly	Glu	Glu 300
Leu	Val	Leu	Ser	Lys 305	Lys	Leu	Lys	Asn	Thr 310	Ile	Tyr	Pro	Leu	Thr 315
Val	Asp	Gly	Thr	Val 320	Phe	Pro	Lys	Ser	Pro 325	Lys	Glu	Leu	Leu	Lys 330
Glu	Lys	Pro	Phe	His 335	Ser	Val	Pro	Phe	Leu 340	Met	Gly	Val	Asn	Asn 345

His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp
				350					355					360
Thr	Met	Glu	Gln	Met	Ser	Arg	Glu	Asp	Met	Leu	Ala	Ile	Ser	Thr
				365					370					375
Pro	Val	Leu	Thr	Ser	Leu	Asp	Val	Pro	Pro	Glu	Met	Met	Pro	Thr
				380					385					390
Val	Ile	Asp	Glu	Tyr	Leu	Gly	Ser	Asn	Ser	Asp	Ala	Gln	Ala	Lys
				395					400					405
Cys	Gln	Ala	Phe	Gln	Glu	Phe	Met	Gly	Asp	Val	Phe	Ile	Asn	Val
				410					415					420
Pro	Thr	Val	Ser	Phe	Ser	Arg	Tyr	Leu	Arg	Asp	Ser	Gly	Ser	Pro
				425					430					435
Val	Phe	Phe	Tyr	Glu	Phe	Gln	His	Arg	Pro	Ser	Ser	Phe	Ala	Lys
				440					445					450
Ile	Lys	Pro	Ala	Trp	Val	Lys	Ala	Asp	His	Gly	Ala	Glu	Gly	Ala
				455					460					465
Phe	Val	Phe	Gly	Gly	Pro	Phe	Leu	Met	Asp	Glu	Ser	Ser	Arg	Leu
				470					475					480
Ala	Phe	Pro	Glu	Ala	Thr	Glu	Glu	Glu	Lys	Gln	Leu	Ser	Leu	Thr
				485					490					495
Met	Met	Ala	Gln	Trp	Thr	His	Phe	Ala	Arg	Thr	Gly	Asp	Pro	Asn
				500					505					510
Ser	Lys	Ala	Leu	Pro	Pro	Trp	Pro	Gln	Phe	Asn	Gln	Ala	Glu	Gln
				515					520					525
Tyr	Leu	Glu	Ile	Asn	Pro	Val	Pro	Arg	Ala	Gly	Gln	Lys	Phe	Arg
				530					535					540
Glu	Ala	Trp	Met	Gln	Phe	Trp	Ser	Glu	Thr	Leu	Pro	Ser	Lys	Ile
				545					550					555
Gln	Gln	Trp	His	Gln	Lys	Gln	Lys	Asn	Arg	Lys	Ala	Gln	Glu	Asp
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Leu

<210> 24

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 24

gcaaagctct gcctccttgg cc 22

<210> 25
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
gggtggactg tgctctaag gagc 25

<210> 26
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtggcactg ggttgatc 18

<210> 27
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
gatgcagttc tggtcagaga cgctccccag caagatacaa cagt 45

<210> 28
<211> 1342
<212> DNA
<213> Homo Sapien

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aggtatttgc agttttgctg tctatagttc tatgcacagt aacgctat 100
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tgaagtgaag gatgcaaaag gaagaactgt ttctctggaa aagtataaag 200
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gcccaagcaa ggaagtagaa tcttttgcaa gaaaaaacta cggagtaact 400
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<210> 29

<211> 209

<212> PRT

<213> Homo Sapien

<400> 29

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			20						25					30
Thr	Leu	Phe	Leu	Leu	Gln	Leu	Lys	Phe	Leu	Lys	Pro	Lys	Ile	Asn
			35						40					45
Ser	Phe	Tyr	Ala	Phe	Glu	Val	Lys	Asp	Ala	Lys	Gly	Arg	Thr	Val
			50						55					60
Ser	Leu	Glu	Lys	Tyr	Lys	Gly	Lys	Val	Ser	Leu	Val	Val	Asn	Val
			65						70					75
Ala	Ser	Asp	Cys	Gln	Leu	Thr	Asp	Arg	Asn	Tyr	Leu	Gly	Leu	Lys
			80						85					90

Glu	Leu	His	Lys	Glu	Phe	Gly	Pro	Ser	His	Phe	Ser	Val	Leu	Ala	
				95					100					105	
Phe	Pro	Cys	Asn	Gln	Phe	Gly	Glu	Ser	Glu	Pro	Arg	Pro	Ser	Lys	
				110					115					120	
Glu	Val	Glu	Ser	Phe	Ala	Arg	Lys	Asn	Tyr	Gly	Val	Thr	Phe	Pro	
				125					130					135	
Ile	Phe	His	Lys	Ile	Lys	Ile	Leu	Gly	Ser	Glu	Gly	Glu	Pro	Ala	
				140					145					150	
Phe	Arg	Phe	Leu	Val	Asp	Ser	Ser	Lys	Lys	Glu	Pro	Arg	Trp	Asn	
				155					160					165	
Phe	Trp	Lys	Tyr	Leu	Val	Asn	Pro	Glu	Gly	Gln	Val	Val	Lys	Phe	
				170					175					180	
Trp	Arg	Pro	Glu	Glu	Pro	Ile	Glu	Val	Ile	Arg	Pro	Asp	Ile	Ala	
				185					190					195	
Ala	Leu	Val	Arg	Gln	Val	Ile	Ile	Lys	Lys	Lys	Glu	Asp	Leu		
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 30
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<210> 31
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 31
 gtatcttgtc aaccctgagg 20

<210> 32
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 32
 taaccagagc tgctatgtca ggcc 24

<210> 33

<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
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<210> 34
<211> 3721
<212> DNA
<213> Homo Sapien

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 ggggtggcg gaggactttg ctatggattt gaggttgacc ttatgcgcgt 2950
 aggttttggg tttttttgc agttttggtt tcttttgcg ttttctaacc 3000
 aattgcacaa ctccgttctc ggggtggcg caggcagggg aggcttgac 3050
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 cctggaaagg tccctcccca acccaggccc ctggcgtgtg tgggtgtgcg 3150
 tgcgtgtgcg tgccgtgttc gtgtgcaagg ggccggggag gtgggcgtgt 3200
 gtgtgcgtgc cagcgaaggc tgctgtgggc gtgtgtgtca agtgggccac 3250
 gcgtgcaggg tgtgtgtcca cgagcgacga tcgtggtggc cccagcggcc 3300
 tgggcgttgg ctgagccgac gctggggcct ccagaaggcc cgggggtctc 3350
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 gggacaatgc cgggggttca ggcaggagac acgaggagg cctgcccgga 3450
 agtcacatcg gcagcagctg tctaaagggc ttgggggcct ggggggcggc 3500
 gaagggtggg ggggcccctc tgtaaatacg gccccagggt ggtgagagag 3550
 tcccatgcca ccggtcccct tgtgacctcc cccctatgac ctccagctga 3600
 ccatgcatgc cacgtggctg gctgggtcct ctgcccctt tggagtttgc 3650
 ctccccagc cccctcccca tcaataaaac tctgtttaca accaaaaaaa 3700
 aaaaaaaaaa aaaaaaaaaa a 3721

<210> 35
 <211> 888
 <212> PRT
 <213> Homo Sapien

<400> 35
 Met Gln Thr Pro Arg Ala Ser Pro Pro Arg Pro Ala Leu Leu Leu
 1 5 10 15

Leu	Leu	Leu	Leu	Leu	Gly	Gly	Ala	His	Gly	Leu	Phe	Pro	Glu	Glu	20	25	30
Pro	Pro	Pro	Leu	Ser	Val	Ala	Pro	Arg	Asp	Tyr	Leu	Asn	His	Tyr	35	40	45
Pro	Val	Phe	Val	Gly	Ser	Gly	Pro	Gly	Arg	Leu	Thr	Pro	Ala	Glu	50	55	60
Gly	Ala	Asp	Asp	Leu	Asn	Ile	Gln	Arg	Val	Leu	Arg	Val	Asn	Arg	65	70	75
Thr	Leu	Phe	Ile	Gly	Asp	Arg	Asp	Asn	Leu	Tyr	Arg	Val	Glu	Leu	80	85	90
Glu	Pro	Pro	Thr	Ser	Thr	Glu	Leu	Arg	Tyr	Gln	Arg	Lys	Leu	Thr	95	100	105
Trp	Arg	Ser	Asn	Pro	Ser	Asp	Ile	Asn	Val	Cys	Arg	Met	Lys	Gly	110	115	120
Lys	Gln	Glu	Gly	Glu	Cys	Arg	Asn	Phe	Val	Lys	Val	Leu	Leu	Leu	125	130	135
Arg	Asp	Glu	Ser	Thr	Leu	Phe	Val	Cys	Gly	Ser	Asn	Ala	Phe	Asn	140	145	150
Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly	155	160	165
Asp	Asn	Ile	Ser	Gly	Met	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Lys	His	170	175	180
Ala	Asn	Val	Ala	Leu	Phe	Ser	Asp	Gly	Met	Leu	Phe	Thr	Ala	Thr	185	190	195
Val	Thr	Asp	Phe	Leu	Ala	Ile	Asp	Ala	Val	Ile	Tyr	Arg	Ser	Leu	200	205	210
Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp	215	220	225
Phe	Lys	Glu	Pro	Tyr	Phe	Val	His	Ala	Val	Glu	Trp	Gly	Ser	His	230	235	240
Val	Tyr	Phe	Phe	Phe	Arg	Glu	Ile	Ala	Met	Glu	Phe	Asn	Tyr	Leu	245	250	255
Glu	Lys	Val	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	260	265	270
Val	Gly	Gly	Ser	Pro	Arg	Val	Leu	Glu	Lys	Gln	Trp	Thr	Ser	Phe	275	280	285
Leu	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Val	Pro	Gly	Asp	Ser	His	Phe	290	295	300
Tyr	Phe	Asn	Val	Leu	Gln	Ala	Val	Thr	Gly	Val	Val	Ser	Leu	Gly			

	305		310		315
Gly Arg Pro Val	Val Leu Ala Val Phe	Ser Thr Pro Ser Asn Ser			
	320		325		330
Ile Pro Gly Ser	Ala Val Cys Ala Phe	Asp Leu Thr Gln Val Ala			
	335		340		345
Ala Val Phe Glu	Gly Arg Phe Arg Glu	Gln Lys Ser Pro Glu Ser			
	350		355		360
Ile Trp Thr Pro	Val Pro Glu Asp Gln	Val Pro Arg Pro Arg Pro			
	365		370		375
Gly Cys Cys Ala	Ala Pro Gly Met Gln	Tyr Asn Ala Ser Ser Ala			
	380		385		390
Leu Pro Asp Asp	Ile Leu Asn Phe Val	Lys Thr His Pro Leu Met			
	395		400		405
Asp Glu Ala Val	Pro Ser Leu Gly His	Ala Pro Trp Ile Leu Arg			
	410		415		420
Thr Leu Met Arg	His Gln Leu Thr Arg	Val Ala Val Asp Val Gly			
	425		430		435
Ala Gly Pro Trp	Gly Asn Gln Thr Val	Val Phe Leu Gly Ser Glu			
	440		445		450
Ala Gly Thr Val	Leu Lys Phe Leu Val	Arg Pro Asn Ala Ser Thr			
	455		460		465
Ser Gly Thr Ser	Gly Leu Ser Val Phe	Leu Glu Glu Phe Glu Thr			
	470		475		480
Tyr Arg Pro Asp	Arg Cys Gly Arg Pro	Gly Gly Gly Glu Thr Gly			
	485		490		495
Gln Arg Leu Leu	Ser Leu Glu Leu Asp	Ala Ala Ser Gly Gly Leu			
	500		505		510
Leu Ala Ala Phe	Pro Arg Cys Val Val	Arg Val Pro Val Ala Arg			
	515		520		525
Cys Gln Gln Tyr	Ser Gly Cys Met Lys	Asn Cys Ile Gly Ser Gln			
	530		535		540
Asp Pro Tyr Cys	Gly Trp Ala Pro Asp	Gly Ser Cys Ile Phe Leu			
	545		550		555
Ser Pro Gly Thr	Arg Ala Ala Phe Glu	Gln Asp Val Ser Gly Ala			
	560		565		570
Ser Thr Ser Gly	Leu Gly Asp Cys Thr	Gly Leu Leu Arg Ala Ser			
	575		580		585
Leu Ser Glu Asp	Arg Ala Gly Leu Val	Ser Val Asn Leu Leu Val			
	590		595		600

[illegible]

<210> 36
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 36
gaggacctac cggccggaca g 21

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 37
atacaccccg agtactgctg gcag 24

<210> 38
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 38
agacagggca gcggtgctg agcttggagc tggacgcagc tt 42

<210> 39
<211> 2014
<212> DNA
<213> Homo Sapien

<400> 39
agcaactcaa gttcatcatt gtcctgagag agaggagcag cgcggttctc 50
ggccgggaca gcagaacgcc aggggaccct cacctgggcg cgcgggggca 100
cgggctttga ttgtcctggg gtcgcggaga cccgcgcgcc tgccctgcac 150
gccggggcgc aacctttgca gtcgcgttgg ctgctgcgat cggccggcgg 200
gtccctgccg aaggetcggc tgcttctgtc cacctcttac acttcttcat 250
ttatcgggtg atcatttoga gagtccgtct tgtaaattgtt tggcactttg 300
ctactttatt gcttctttct ggcgacagtt ccagcactcg ccgagaccgg 350
cggagaaagg cagctgagcc cggagaagag cgaaatatgg ggacccgggc 400
taaaagcaga cgtcgtcctt cccgcccgct atttctatat tcaggcagtg 450

gatacatcag ggaataaatt cacatcttct ccaggcgaaa aggtcttcca 500
 ggtgaaagtc tcagcaccag aggagcaatt cactagagtt ggagtccagg 550
 ttttagaccg aaaagatggg tccttcatag taagatacag aatgtatgca 600
 agctacaaaa atctgaaggt ggaaattaaa ttccaagggc aacatgtggc 650
 caaatcccca tatatttttaa aaggggccggt ttacatgag aactgtgact 700
 gtcctctgca agatagtgcg gcctgggtac gggagatgaa ctgccctgaa 750
 accattgctc agattcagag agatctggca catttccctg ctgtggatcc 800
 agaaaagatt gcagtagaaa tcccaaaaag atttggacag aggcagagcc 850
 tatgtcacta caccttaaag gataacaagg tttatatcaa gactcatggt 900
 gaacatgtag gttttagaat tttcatggat gccatactac tttctttgac 950
 tagaaaggtg aagatgccag atgtggagct ctttgttaat ttgggagact 1000
 ggcctttgga aaaaaagaaa tccaattcaa acatccatcc gatcttttcc 1050
 tgggtgtggct ccacagattc caaggatata gtgatgccta cgtacgattt 1100
 gactgattct gttctggaaa ccatgggccc ggtaagtctg gatatgatgt 1150
 ccgtgcaagc taacacgggt cctccctggg aaagcaaaaa ttccactgcc 1200
 gtctggagag ggcgagacag ccgcaaagag agactcgagc tggttaaact 1250
 cagtagaaaa caccagaac tcatagacgc tgctttcacc aactttttct 1300
 tctttaaaca cgatgaaaac ctgtatggtc ccattgtgaa acatatttca 1350
 ttttttgatt tcttcaagca taagtatcaa ataaatatcg atggcactgt 1400
 agcagcttat cgctgccaat atttgctagt tggtgacagt gttgtgctga 1450
 agcaggattc catctactat gaacattttt acaatgagct gcagccctgg 1500
 aaacactaca ttccagttaa gagcaacctg agcgatctgc tagaaaaact 1550
 taaatgggag aaagatcacg atgaagaggc caaaaagata gcaaaagcag 1600
 gacaagaatt tgcaagaaat aatctcatgg gcgatgacat attctgttat 1650
 tatttcaaac ttttccagga atatgccaat ttacaagtga gtgagcccca 1700
 aatccgagag ggcattgaaa gggtagaacc acagactgag gacgacctct 1750
 tcccttgtag ttgccatagg aaaaagacca aagatgaact ctgatatgca 1800
 aaataacttc tattagaata atgggtgctc gaagactctt cttaactaaa 1850
 aagaagaatt tttttaagta ttaattccat ggacaatata aaatctgtgt 1900

gattgtttgc agtatgaaga cacattttcta cttatgcagt atttctcatga 1950
 ctgtacttta aagtacattt ttagaatttt ataataaaaac cacctttatt 2000
 ttaaaggaaa aaaa 2014

<210> 40
 <211> 502
 <212> PRT
 <213> Homo Sapien

<400> 40
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 Pro Ala Leu Ala Glu Thr Gly Gly Glu Arg Gln Leu Ser Pro Glu
 20 25 30
 Lys Ser Glu Ile Trp Gly Pro Gly Leu Lys Ala Asp Val Val Leu
 35 40 45
 Pro Ala Arg Tyr Phe Tyr Ile Gln Ala Val Asp Thr Ser Gly Asn
 50 55 60
 Lys Phe Thr Ser Ser Pro Gly Glu Lys Val Phe Gln Val Lys Val
 65 70 75
 Ser Ala Pro Glu Glu Gln Phe Thr Arg Val Gly Val Gln Val Leu
 80 85 90
 Asp Arg Lys Asp Gly Ser Phe Ile Val Arg Tyr Arg Met Tyr Ala
 95 100 105
 Ser Tyr Lys Asn Leu Lys Val Glu Ile Lys Phe Gln Gly Gln His
 110 115 120
 Val Ala Lys Ser Pro Tyr Ile Leu Lys Gly Pro Val Tyr His Glu
 125 130 135
 Asn Cys Asp Cys Pro Leu Gln Asp Ser Ala Ala Trp Leu Arg Glu
 140 145 150
 Met Asn Cys Pro Glu Thr Ile Ala Gln Ile Gln Arg Asp Leu Ala
 155 160 165
 His Phe Pro Ala Val Asp Pro Glu Lys Ile Ala Val Glu Ile Pro
 170 175 180
 Lys Arg Phe Gly Gln Arg Gln Ser Leu Cys His Tyr Thr Leu Lys
 185 190 195
 Asp Asn Lys Val Tyr Ile Lys Thr His Gly Glu His Val Gly Phe
 200 205 210
 Arg Ile Phe Met Asp Ala Ile Leu Leu Ser Leu Thr Arg Lys Val
 215 220 225
 Lys Met Pro Asp Val Glu Leu Phe Val Asn Leu Gly Asp Trp Pro

				230					235					240
Leu	Glu	Lys	Lys	Lys 245	Ser	Asn	Ser	Asn	Ile 250	His	Pro	Ile	Phe	Ser 255
Trp	Cys	Gly	Ser	Thr 260	Asp	Ser	Lys	Asp	Ile 265	Val	Met	Pro	Thr	Tyr 270
Asp	Leu	Thr	Asp	Ser 275	Val	Leu	Glu	Thr	Met 280	Gly	Arg	Val	Ser	Leu 285
Asp	Met	Met	Ser	Val 290	Gln	Ala	Asn	Thr	Gly 295	Pro	Pro	Trp	Glu	Ser 300
Lys	Asn	Ser	Thr	Ala 305	Val	Trp	Arg	Gly	Arg 310	Asp	Ser	Arg	Lys	Glu 315
Arg	Leu	Glu	Leu	Val 320	Lys	Leu	Ser	Arg	Lys 325	His	Pro	Glu	Leu	Ile 330
Asp	Ala	Ala	Phe	Thr 335	Asn	Phe	Phe	Phe	Phe 340	Lys	His	Asp	Glu	Asn 345
Leu	Tyr	Gly	Pro	Ile 350	Val	Lys	His	Ile	Ser 355	Phe	Phe	Asp	Phe	Phe 360
Lys	His	Lys	Tyr	Gln 365	Ile	Asn	Ile	Asp	Gly 370	Thr	Val	Ala	Ala	Tyr 375
Arg	Leu	Pro	Tyr	Leu 380	Leu	Val	Gly	Asp	Ser 385	Val	Val	Leu	Lys	Gln 390
Asp	Ser	Ile	Tyr	Tyr 395	Glu	His	Phe	Tyr	Asn 400	Glu	Leu	Gln	Pro	Trp 405
Lys	His	Tyr	Ile	Pro 410	Val	Lys	Ser	Asn	Leu 415	Ser	Asp	Leu	Leu	Glu 420
Lys	Leu	Lys	Trp	Ala 425	Lys	Asp	His	Asp	Glu 430	Glu	Ala	Lys	Lys	Ile 435
Ala	Lys	Ala	Gly	Gln 440	Glu	Phe	Ala	Arg	Asn 445	Asn	Leu	Met	Gly	Asp 450
Asp	Ile	Phe	Cys	Tyr 455	Tyr	Phe	Lys	Leu	Phe 460	Gln	Glu	Tyr	Ala	Asn 465
Leu	Gln	Val	Ser	Glu 470	Pro	Gln	Ile	Arg	Glu 475	Gly	Met	Lys	Arg	Val 480
Glu	Pro	Gln	Thr	Glu 485	Asp	Asp	Leu	Phe	Pro 490	Cys	Thr	Cys	His	Arg 495
Lys	Lys	Thr	Lys	Asp 500	Glu	Leu								

34

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 41
gaaggtggaa attaaattcc aagggc 26

<210> 42
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 42
cgataagctg ctacagtgcc atcg 24

<210> 43
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
gtgactgtcc tctgcaagat agtgcagcct ggctacggga 40

<210> 44
<211> 2395
<212> DNA
<213> Homo Sapien

<400> 44
cctggagccg gaagcgcggc tgcagcaggg cgaggctcca ggtggggtcg 50
gttccgcata cagcctagcg tgtccacgat ggggctgggc tccgggactt 100
tcgctacctg ttgcgtagcg atcgaggtgc tagggatcgc ggtcttcctt 150
cggggattct tcccggctcc cgttcgttcc tctgccagag cggaacacgg 200
agcggagccc ccagcgcccg aaccctcggc tggagccagt tctaactgga 250
ccacgctgcc accacctctc ttcagtaaag ttgttattgt tctgatagat 300
gccttgagag atgattttgt gtttgggtca aaggggtgtga aatttatgcc 350
ctacacaact taccttgtgg aaaaaggagc atctcacagt tttgtggctg 400
aagcaaagcc acctacagtt actatgcctc gaatcaaggc attgatgacg 450
gggagccttc ctggctttgt cgacgtcatc aggaacctca attctcctgc 500
actgctggaa gacagtgtga taagacaagc aaaagcagct ggaaaaagaa 550

tagtctttta tggagatgaa acctgggtta aattattccc aaagcatttt 600
 gtggaatatg atggaacaac ctcatTTTTt gtgtcagatt acacagaggt 650
 ggataataat gtcacgaggc atttggataa agtattaaaa agaggagatt 700
 gggacatatt aatcctccac tacctggggc tggaccacat tggccacatt 750
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 cgtgctgatg aagatccaca cctcactgca gtcgaaggag agagagacgc 850
 ctttaccocaa tttgctgggtt ctttgtgggtg accatggcat gtctgaaaca 900
 ggaagtcaag gggcctcctc caccgaggag gtgaatacac ctctgatttt 950
 aatcagttct gcgtttgaaa ggaaacccgg tgatatccga catccaaagc 1000
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 ttagtaaact gttgcaagag aatgtgccgt catatgaaaa agatcctggg 1200
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 gtacttggag gaaaagcatt cagaagtcct attcaacctg ggctccaagg 1300
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 ctgcagctga ggaagaaga gacaatcggc ctggacactc aggagggtca 1900
 aaaggagact tggctgcacc actcatcctg ccacccccag aatgcacct 1950
 gcctcatcag gtccagattt ctttccaagg cggacgtttt ctgttggaat 2000

tcttagtcct tggcctcgga caccttcatt cgtagctgg ggagtgggtg 2050
 tgaggcagtg aagaagaggc ggatgggtcac actcagatcc acagagccca 2100
 ggatcaaggg acccactgca gtggcagcag gactgttggg cccccacccc 2150
 aaccctgcac agccctcadc ccctcttggc ttgagccgtc agaggccctg 2200
 tgctgagtgt ctgaccgaga cactcacagc tttgtcatca gggcacaggc 2250
 ttctcggag ccaggatgat ctgtgccagc cttgcacctc gggcccatct 2300
 gggctcatgc tctctctcct gctattgaat tagtacctag ctgcacacag 2350
 tatgtagtta ccaaaagaat aaacggcaat aattgagaaa aaaaa 2395

<210> 45
 <211> 310
 <212> PRT
 <213> Homo Sapien

<400> 45
 Met Arg Leu Gly Ser Gly Thr Phe Ala Thr Cys Cys Val Ala Ile
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 Glu Val Leu Gly Ile Ala Val Phe Leu Arg Gly Phe Phe Pro Ala
 20 25 30
 Pro Val Arg Ser Ser Ala Arg Ala Glu His Gly Ala Glu Pro Pro
 35 40 45
 Ala Pro Glu Pro Ser Ala Gly Ala Ser Ser Asn Trp Thr Thr Leu
 50 55 60
 Pro Pro Pro Leu Phe Ser Lys Val Val Ile Val Leu Ile Asp Ala
 65 70 75
 Leu Arg Asp Asp Phe Val Phe Gly Ser Lys Gly Val Lys Phe Met
 80 85 90
 Pro Tyr Thr Thr Tyr Leu Val Glu Lys Gly Ala Ser His Ser Phe
 95 100 105
 Val Ala Glu Ala Lys Pro Pro Thr Val Thr Met Pro Arg Ile Lys
 110 115 120
 Ala Leu Met Thr Gly Ser Leu Pro Gly Phe Val Asp Val Ile Arg
 125 130 135
 Asn Leu Asn Ser Pro Ala Leu Leu Glu Asp Ser Val Ile Arg Gln
 140 145 150
 Ala Lys Ala Ala Gly Lys Arg Ile Val Phe Tyr Gly Asp Glu Thr
 155 160 165
 Trp Val Lys Leu Phe Pro Lys His Phe Val Glu Tyr Asp Gly Thr
 170 175 180

Thr Ser Phe Phe Val Ser Asp Tyr Thr Glu Val Asp Asn Asn Val
185 190 195

Thr Arg His Leu Asp Lys Val Leu Lys Arg Gly Asp Trp Asp Ile
200 205 210

Leu Ile Leu His Tyr Leu Gly Leu Asp His Ile Gly His Ile Ser
215 220 225

Gly Pro Asn Ser Pro Leu Ile Gly Gln Lys Leu Ser Glu Met Asp
230 235 240

Ser Val Leu Met Lys Ile His Thr Ser Leu Gln Ser Lys Glu Arg
245 250 255

Glu Thr Pro Leu Pro Asn Leu Leu Val Leu Cys Gly Asp His Gly
260 265 270

Met Ser Glu Thr Gly Ser His Gly Ala Ser Ser Thr Glu Glu Val
275 280 285

Asn Thr Pro Leu Ile Leu Ile Ser Ser Ala Phe Glu Arg Lys Pro
290 295 300

Gly Asp Ile Arg His Pro Lys His Val Gln
305 310

<210> 46

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 46

cgggactttc gctacctgtt gc 22

<210> 47

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 47

catcatattc cacaaaatgc tttggg 26

<210> 48

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttcccgg ctcccggtcg ttctcttg 38

<210> 49

<211> 918

<212> DNA

<213> Homo Sapien

<400> 49

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agcaatggca atgggggtcc ccagagtcac tctgctctgc ctctttgggg 100
ctgcgctctg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150
cacacctact ttggcccctt tgacctcagg gccatgaagc tgcccagcat 200
ctcctgtcct catgagtgtt ttgaggctat cctgtctctg gacaccgggt 250
atcgcgcgcc ggtgaccctg gtgcggaagg gctgctggac cgggcctcct 300
gcgggccaga cgcaatcgaa cccggacgcg ctgccgccag actactcggg 350
ggtgcgcggc tgcacaactg acaaatgcaa cgcccacctc atgactcatg 400
acgcctccc caacctgagc caagcaccg acccgccgac gctcagcggc 450
gccgagtgtt acgcctgtat cgggggtccac caggatgact gcgctatcgg 500
caggtcccga cgagtcacgt gtcaccagga ccagaccgcc tgcttccagg 550
gcagtggcag aatgacagtt ggcaatttct cagtccctgt gtacatcaga 600
acctgccacc ggccctcctg caccaccgag ggcaccacca gcccctggac 650
agccatcgac ctccagggtt cctgctgtga ggggtacctc tgcaacagga 700
aatccatgac ccagcccttc accagtgttt cagccaccac ccctccccga 750
gcactacagg tcttgccctt gctcctccca gtcctcctgc tgggtggggct 800
ctcagcatag accgcccctc caggatgctg gggacagggc tcacacacct 850
cattcttgct gcttcagccc ctatcacata gctcactgga aaatgatgtt 900
aaagtaagaa ttgcaaaa 918

<210> 50

<211> 251

<212> PRT

<213> Homo Sapien

<400> 50

Met	Ala	Met	Gly	Val	Pro	Arg	Val	Ile	Leu	Leu	Cys	Leu	Phe	Gly
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Ala	Ala	Leu	Cys	Leu	Thr	Gly	Ser	Gln	Ala	Leu	Gln	Cys	Tyr	Ser
			20						25					30

Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys	35	40	45
Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu	50	55	60
Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys	65	70	75
Gly	Cys	Trp	Thr	Gly	Pro	Pro	Ala	Gly	Gln	Thr	Gln	Ser	Asn	Pro	80	85	90
Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr	95	100	105
Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn	110	115	120
Leu	Ser	Gln	Ala	Pro	Asp	Pro	Pro	Thr	Leu	Ser	Gly	Ala	Glu	Cys	125	130	135
Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg	140	145	150
Ser	Arg	Arg	Val	Gln	Cys	His	Gln	Asp	Gln	Thr	Ala	Cys	Phe	Gln	155	160	165
Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr	170	175	180
Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr	185	190	195
Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly	200	205	210
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala	215	220	225
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu	230	235	240
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala					245	250	

<210> 51
 <211> 3288
 <212> DNA
 <213> Homo Sapien

<400> 51
 cccacgcgtc cgggacagat gaacttaaaa gagaagcttt agctgccaaa 50
 gattgggaaa gggaaaggac aaaaaagacc cctgggctac acggcgtagg 100
 tgcagggttt cctactgctg ttcttttatg ctgggagctg tggtctgtaac 150
 caactaggaa ataacgtatg cagcagctat ggctgtcaga gagttgtgct 200

gccgccccaa gacccgcacc tgccctcgc ctccctggtc tccatcaacg 1700
 cggacaacgg ccacctgttc gccctcaggt cgctggacta cgaggccctg 1750
 caggctttcg agttccgctt gggcgccaca gaccgcggct ccccgcgct 1800
 gagcagagag gcgctggtgc gcgtgctggt gctggacgcc aacgacaact 1850
 cgcccttcgt gctgtaccgc ctgcagaacg gctccgcgcc ctgcaccgag 1900
 ctggtgcccc gggcgggcca gccgggctac ctggtgacca aggtggtggc 1950
 ggtggacggc gactcggggc agaacgcctg gctgtcgtac cagctgctca 2000
 agggcacgga gcccgggctg ttcggtgtgt gggcgacaca tggggagggtg 2050
 cgcaccgcca ggctgctgag cgagcgcgac gcagccaagc acaggctcgt 2100
 ggtgcttgtc aaggacaatg gcgagcctcc tcgctcggcc accgccacgc 2150
 tgcacttgct cctggtggac ggcttctccc agccctacct gcctctcccg 2200
 gaggcggccc cggcccaggc ccaggccgag gccgacttgc tcaccgtcta 2250
 cctggtggtg gcgttggcct cgggtgtctc gctcttctc ctctcgggtg 2300
 tcctgttcgt ggcggtgcgg ctgtgcagga ggagcagggc ggcctcgggtg 2350
 ggtcgtgct cgggtgcccga gggtcctttt ccagggcacg tgggtggacgt 2400
 gaggggcgct gagaccctgt ccagagcta ccagtatgag gtgtgtctga 2450
 cgggaggccc cgggaccagt gagttcaagt tcttgaaacc agttatttcg 2500
 gatattcagg cacagggccc tgggaggaag ggtgaagaaa attccacctt 2550
 ccgaaatagc tttggattta atattcagta aagtctgttt ttagtttcat 2600
 atacttttgg tgtgttacat agccatgttt ctattagttt actttttaa 2650
 ctcaaattta agttattatg caacttcaag cattattttc aagtagtata 2700
 cccctgtggt ttacaatgt ttcacatctt ttttgcatga ataacaactg 2750
 ggtttaattt aatgagtatt tttttctaaa tgatagtgtt aaggttttta 2800
 ttctttccaa ctgcccgaag aattaattac tattatatct cattacagaa 2850
 atctgagggt ttgattcatt tcagagcttg catctcatga ttctaatac 2900
 ttctgtctat agtgacttgc ctctatttaa gaaggcatat ctacatttcc 2950
 aaactcattc taacattcta tatattcgtg tttgaaaacc atgtcattta 3000
 tttctacatc atgtatttaa aaagaaatat ttctctacta ctatgctcat 3050
 gacaaaatga aacaaagcat attgtgagca atactgaaca tcaataatac 3100

ccttagttta tataacttatt attttatctt taagcatgct actttttactt 3150
 ggccaatatt ttcttatggt aacttttgct gatgtataaa acagactatg 3200
 ccttataatt gaaataaaat tataatctgc ctgaaaatga ataaaaataa 3250
 aacattttga aatgtgaaaa aaaaaaaaaa aaaaaaaaaa 3288

<210> 52
 <211> 800
 <212> PRT
 <213> Homo Sapien

<400> 52

Met	Ala	Val	Arg	Glu	Leu	Cys	Phe	Pro	Arg	Gln	Arg	Gln	Val	Leu
1				5					10					15
Phe	Leu	Phe	Leu	Phe	Trp	Gly	Val	Ser	Leu	Ala	Gly	Ser	Gly	Phe
				20					25					30
Gly	Arg	Tyr	Ser	Val	Thr	Glu	Glu	Thr	Glu	Lys	Gly	Ser	Phe	Val
				35					40					45
Val	Asn	Leu	Ala	Lys	Asp	Leu	Gly	Leu	Ala	Glu	Gly	Glu	Leu	Ala
				50					55					60
Ala	Arg	Gly	Thr	Arg	Val	Val	Ser	Asp	Asp	Asn	Lys	Gln	Tyr	Leu
				65					70					75
Leu	Leu	Asp	Ser	His	Thr	Gly	Asn	Leu	Leu	Thr	Asn	Glu	Lys	Leu
				80					85					90
Asp	Arg	Glu	Lys	Leu	Cys	Gly	Pro	Lys	Glu	Pro	Cys	Met	Leu	Tyr
				95					100					105
Phe	Gln	Ile	Leu	Met	Asp	Asp	Pro	Phe	Gln	Ile	Tyr	Arg	Ala	Glu
				110					115					120
Leu	Arg	Val	Arg	Asp	Ile	Asn	Asp	His	Ala	Pro	Val	Phe	Gln	Asp
				125					130					135
Lys	Glu	Thr	Val	Leu	Lys	Ile	Ser	Glu	Asn	Thr	Ala	Glu	Gly	Thr
				140					145					150
Ala	Phe	Arg	Leu	Glu	Arg	Ala	Gln	Asp	Pro	Asp	Gly	Gly	Leu	Asn
				155					160					165
Gly	Ile	Gln	Asn	Tyr	Thr	Ile	Ser	Pro	Asn	Ser	Phe	Phe	His	Ile
				170					175					180
Asn	Ile	Ser	Gly	Gly	Asp	Glu	Gly	Met	Ile	Tyr	Pro	Glu	Leu	Val
				185					190					195
Leu	Asp	Lys	Ala	Leu	Asp	Arg	Glu	Glu	Gln	Gly	Glu	Leu	Ser	Leu
				200					205					210
Thr	Leu	Thr	Ala	Leu	Asp	Gly	Gly	Ser	Pro	Ser	Arg	Ser	Gly	Thr
				215					220					225

Ser Thr Val Arg	Ile Val Val Leu Asp	Val Asn Asp Asn Ala Pro	230	235	240
Gln Phe Ala Gln	Ala Leu Tyr Glu Thr	Gln Ala Pro Glu Asn Ser	245	250	255
Pro Ile Gly Phe	Leu Ile Val Lys Val	Trp Ala Glu Asp Val Asp	260	265	270
Ser Gly Val Asn	Ala Glu Val Ser Tyr	Ser Phe Phe Asp Ala Ser	275	280	285
Glu Asn Ile Arg	Thr Thr Phe Gln Ile	Asn Pro Phe Ser Gly Glu	290	295	300
Ile Phe Leu Arg	Glu Leu Leu Asp Tyr	Glu Leu Val Asn Ser Tyr	305	310	315
Lys Ile Asn Ile	Gln Ala Met Asp Gly	Gly Gly Leu Ser Ala Arg	320	325	330
Cys Arg Val Leu	Val Glu Val Leu Asp	Thr Asn Asp Asn Pro Pro	335	340	345
Glu Leu Ile Val	Ser Ser Phe Ser Asn	Ser Val Ala Glu Asn Ser	350	355	360
Pro Glu Thr Pro	Leu Ala Val Phe Lys	Ile Asn Asp Arg Asp Ser	365	370	375
Gly Glu Asn Gly	Lys Met Val Cys Tyr	Ile Gln Glu Asn Leu Pro	380	385	390
Phe Leu Leu Lys	Pro Ser Val Glu Asn	Phe Tyr Ile Leu Ile Thr	395	400	405
Glu Gly Ala Leu	Asp Arg Glu Ile Arg	Ala Glu Tyr Asn Ile Thr	410	415	420
Ile Thr Val Thr	Asp Leu Gly Thr Pro	Arg Leu Lys Thr Glu His	425	430	435
Asn Ile Thr Val	Leu Val Ser Asp Val	Asn Asp Asn Ala Pro Ala	440	445	450
Phe Thr Gln Thr	Ser Tyr Thr Leu Phe	Val Arg Glu Asn Asn Ser	455	460	465
Pro Ala Leu His	Ile Gly Ser Val Ser	Ala Thr Asp Arg Asp Ser	470	475	480
Gly Thr Asn Ala	Gln Val Thr Tyr Ser	Leu Leu Pro Pro Gln Asp	485	490	495
Pro His Leu Pro	Leu Ala Ser Leu Val	Ser Ile Asn Ala Asp Asn	500	505	510
Gly His Leu Phe	Ala Leu Arg Ser Leu	Asp Tyr Glu Ala Leu Gln			

515										520					525				
Ala	Phe	Glu	Phe	Arg	Val	Gly	Ala	Thr	Asp	Arg	Gly	Ser	Pro	Ala					
				530					535					540					
Leu	Ser	Arg	Glu	Ala	Leu	Val	Arg	Val	Leu	Val	Leu	Asp	Ala	Asn					
				545					550					555					
Asp	Asn	Ser	Pro	Phe	Val	Leu	Tyr	Pro	Leu	Gln	Asn	Gly	Ser	Ala					
				560					565					570					
Pro	Cys	Thr	Glu	Leu	Val	Pro	Arg	Ala	Ala	Glu	Pro	Gly	Tyr	Leu					
				575					580					585					
Val	Thr	Lys	Val	Val	Ala	Val	Asp	Gly	Asp	Ser	Gly	Gln	Asn	Ala					
				590					595					600					
Trp	Leu	Ser	Tyr	Gln	Leu	Leu	Lys	Ala	Thr	Glu	Pro	Gly	Leu	Phe					
				605					610					615					
Gly	Val	Trp	Ala	His	Asn	Gly	Glu	Val	Arg	Thr	Ala	Arg	Leu	Leu					
				620					625					630					
Ser	Glu	Arg	Asp	Ala	Ala	Lys	His	Arg	Leu	Val	Val	Leu	Val	Lys					
				635					640					645					
Asp	Asn	Gly	Glu	Pro	Pro	Arg	Ser	Ala	Thr	Ala	Thr	Leu	His	Leu					
				650					655					660					
Leu	Leu	Val	Asp	Gly	Phe	Ser	Gln	Pro	Tyr	Leu	Pro	Leu	Pro	Glu					
				665					670					675					
Ala	Ala	Pro	Ala	Gln	Ala	Gln	Ala	Glu	Ala	Asp	Leu	Leu	Thr	Val					
				680					685					690					
Tyr	Leu	Val	Val	Ala	Leu	Ala	Ser	Val	Ser	Ser	Leu	Phe	Leu	Leu					
				695					700					705					
Ser	Val	Leu	Leu	Phe	Val	Ala	Val	Arg	Leu	Cys	Arg	Arg	Ser	Arg					
				710					715					720					
Ala	Ala	Ser	Val	Gly	Arg	Cys	Ser	Val	Pro	Glu	Gly	Pro	Phe	Pro					
				725					730					735					
Gly	His	Leu	Val	Asp	Val	Arg	Gly	Ala	Glu	Thr	Leu	Ser	Gln	Ser					
				740					745					750					
Tyr	Gln	Tyr	Glu	Val	Cys	Leu	Thr	Gly	Gly	Pro	Gly	Thr	Ser	Glu					
				755					760					765					
Phe	Lys	Phe	Leu	Lys	Pro	Val	Ile	Ser	Asp	Ile	Gln	Ala	Gln	Gly					
				770					775					780					
Pro	Gly	Arg	Lys	Gly	Glu	Glu	Asn	Ser	Thr	Phe	Arg	Asn	Ser	Phe					
				785					790					795					
Gly	Phe	Asn	Ile	Gln															
				800															

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
ctggggagtg tccttggcag gttc 24

<210> 54
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 54
cagcatacag ggctctttag ggcacac 27

<210> 55
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 55
cggtgactga ggaaacagag aaaggatcct ttgtggtcaa tctggc 46

<210> 56
<211> 2242
<212> DNA
<213> Homo Sapien

<220>
<221> unsure
<222> 2181
<223> unknown base

<400> 56
gaatgaatac ctccgaagcc gctttgttct ccagatgtga atagctccac 50
tataccagcc tcgtcttcct tccgggggac aacgtgggtc agggcacaga 100
gagatattta atgtcaccct cttggggcctt tcatgggact ccctctgcc 150
catttttttg aggttgggaa agttgctaga ggcttcagaa ctccagccta 200
atggatccca aactcgggag aatggctgcg tccctgctgg ctgtgctgct 250
gctgctgctg gagcgcggca tggtctcctc accctcccgc cccccggcgc 300
tgttagagaa agtcttccag tacattgacc tccatcagga tgaatttgtg 350

cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcggaca 450
cgctgcagcg cctggggggc cgtgtggcct cggtaggacat gggtcctcag 500
cagctgcccc atggtcagag tcttccaata cctcccgta tccctggccga 550
actggggagc gatccacga aaggcaccgt gtgctttctac ggccacttgg 600
acgtgcagcc tgctgaccgg ggcgatgggt ggctcacgga cccctatgtg 650
ctgacggagg tagacgggaa actttatgga cgaggagcga ccgacaacaa 700
agggcctgtc ttggcttggg tcaatgctgt gagcgccctc agagccctgg 750
agcaagatct tccctgtgaat atcaaattca tcattgaggg gatggaagag 800
gctggctctg ttgccctgga ggaacttgtg gaaaaagaaa aggaccgatt 850
cttctctgggt gtggactaca ttgtaatttc agataacctg tggatcagcc 900
aaaggaagcc agcaatcact tatggaaccc gggggaacag ctacttcatg 950
gtggaggtga aatgcagaga ccaggatttt cactcaggaa cctttggtgg 1000
catccttcat gaaccaatgg ctgatctggt tgctcttctc ggtagcctgg 1050
tagactcgtc tggatcatatc ctgggtccctg gaatctatga tgaagtgggt 1100
cctcttacag aagaggaaat aaatacatatc aaagccatcc atctagacct 1150
agaagaatac cggaatagca gccgggttga gaaatttctg ttcgatacta 1200
aggaggagat tctaattgcac ctctggaggt acccatctct ttctattcat 1250
gggatcgagg gcgcgtttga tgagcctgga actaaaacag tcatacctgg 1300
ccgagttata ggaaaatttt caatccgtct agtccctcac atgaatgtgt 1350
ctgcggtgga aaaacagggtg acacgacatc ttgaagatgt gttctccaaa 1400
agaaatagtt ccaacaagat ggttggttcc atgactctag gactacaccc 1450
gtggattgca aatattgatg acaccagta tctcgcagca aaaagagcga 1500
tcagaacagt gtttggaaac gaaccagata tgatccggga tggatccacc 1550
attccaattg ccaaaatggt ccaggagatc gtccacaaga gcgtggtgct 1600
aattccgctg ggagctggtg atgatggaga acattcgcag aatgagaaaa 1650
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ttagagatgg ccagctcca ttaatcacia gaaccttcta gtctgatctg 1750
atccactgac agattcacct cccccacatc cctagacagg gatggaatgt 1800

aaatatccag agaatttggg tctagtatag tacattttcc cttccattta 1850
 aaatgtcttg ggatatctgg atcagtaata aaatatttca aaggcacaga 1900
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 ctgcttgag caacttgatt tccccaaagtc ctgtgcaata gccccaggat 2000
 tggattcctt ccaacctttt agcatatctc caaccttgca atttgattgg 2050
 cataatcact ccggtttgct ttctaggtcc tcaagtgtc gtgacacata 2100
 atcattccat ccaatgatcg cctttgcttt accactcttt ccttttatct 2150
 tattaataaa aatgttggtc tccaccactg nctcccaaaa aaaaaaaaaa 2200
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

<210> 57

<211> 507

<212> PRT

<213> Homo Sapien

<400> 57

Met	Asp	Pro	Lys	Leu	Gly	Arg	Met	Ala	Ala	Ser	Leu	Leu	Ala	Val
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Leu	Leu	Leu	Leu	Leu	Glu	Arg	Gly	Met	Phe	Ser	Ser	Pro	Ser	Pro
				20					25					30
Pro	Pro	Ala	Leu	Leu	Glu	Lys	Val	Phe	Gln	Tyr	Ile	Asp	Leu	His
				35					40					45
Gln	Asp	Glu	Phe	Val	Gln	Thr	Leu	Lys	Glu	Trp	Val	Ala	Ile	Glu
				50					55					60
Ser	Asp	Ser	Val	Gln	Pro	Val	Pro	Arg	Phe	Arg	Gln	Glu	Leu	Phe
				65					70					75
Arg	Met	Met	Ala	Val	Ala	Ala	Asp	Thr	Leu	Gln	Arg	Leu	Gly	Ala
				80					85					90
Arg	Val	Ala	Ser	Val	Asp	Met	Gly	Pro	Gln	Gln	Leu	Pro	Asp	Gly
				95					100					105
Gln	Ser	Leu	Pro	Ile	Pro	Pro	Val	Ile	Leu	Ala	Glu	Leu	Gly	Ser
				110					115					120
Asp	Pro	Thr	Lys	Gly	Thr	Val	Cys	Phe	Tyr	Gly	His	Leu	Asp	Val
				125					130					135
Gln	Pro	Ala	Asp	Arg	Gly	Asp	Gly	Trp	Leu	Thr	Asp	Pro	Tyr	Val
				140					145					150
Leu	Thr	Glu	Val	Asp	Gly	Lys	Leu	Tyr	Gly	Arg	Gly	Ala	Thr	Asp
				155					160					165
Asn	Lys	Gly	Pro	Val	Leu	Ala	Trp	Ile	Asn	Ala	Val	Ser	Ala	Phe

Arg Ala Leu Glu Gln Asp Leu Pro Val	Asn Ile Lys Phe Ile Ile	
185	190	195
Glu Gly Met Glu Glu Ala Gly Ser Val	Ala Leu Glu Glu Leu Val	
200	205	210
Glu Lys Glu Lys Asp Arg Phe Phe Ser	Gly Val Asp Tyr Ile Val	
215	220	225
Ile Ser Asp Asn Leu Trp Ile Ser Gln	Arg Lys Pro Ala Ile Thr	
230	235	240
Tyr Gly Thr Arg Gly Asn Ser Tyr Phe	Met Val Glu Val Lys Cys	
245	250	255
Arg Asp Gln Asp Phe His Ser Gly Thr	Phe Gly Gly Ile Leu His	
260	265	270
Glu Pro Met Ala Asp Leu Val Ala Leu	Leu Gly Ser Leu Val Asp	
275	280	285
Ser Ser Gly His Ile Leu Val Pro Gly	Ile Tyr Asp Glu Val Val	
290	295	300
Pro Leu Thr Glu Glu Glu Ile Asn Thr	Tyr Lys Ala Ile His Leu	
305	310	315
Asp Leu Glu Glu Tyr Arg Asn Ser Ser	Arg Val Glu Lys Phe Leu	
320	325	330
Phe Asp Thr Lys Glu Glu Ile Leu Met	His Leu Trp Arg Tyr Pro	
335	340	345
Ser Leu Ser Ile His Gly Ile Glu Gly	Ala Phe Asp Glu Pro Gly	
350	355	360
Thr Lys Thr Val Ile Pro Gly Arg Val	Ile Gly Lys Phe Ser Ile	
365	370	375
Arg Leu Val Pro His Met Asn Val Ser	Ala Val Glu Lys Gln Val	
380	385	390
Thr Arg His Leu Glu Asp Val Phe Ser	Lys Arg Asn Ser Ser Asn	
395	400	405
Lys Met Val Val Ser Met Thr Leu Gly	Leu His Pro Trp Ile Ala	
410	415	420
Asn Ile Asp Asp Thr Gln Tyr Leu Ala	Ala Lys Arg Ala Ile Arg	
425	430	435
Thr Val Phe Gly Thr Glu Pro Asp Met	Ile Arg Asp Gly Ser Thr	
440	445	450
Ile Pro Ile Ala Lys Met Phe Gln Glu	Ile Val His Lys Ser Val	
455	460	465

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln
470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
500 505

<210> 58
<211> 1470
<212> DNA
<213> Homo Sapien

<400> 58
ctcggctgga ttttaaggttg ccgctagccg cctgggaatt taagggaccc 50
acactacctt cccgaagttg aaggcaagcg gtgattgttt gtagacggcg 100
ctttgtcatg ggacctgtgc ggttggaat attgcttttc ctttttttgg 150
ccgtgcacga ggcttgggct gggatgttga aggaggagga cgatgacaca 200
gaacgcttgc ccagcaaagc cgaagtgtgt aagctgctga gcacagagct 250
acaggcggaa ctgagtcgca ccggtcgatc tgcagaggtg ctggagctgg 300
ggcaggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcgtt 350
tcagagacaa ggctggaaga ggccttagag aatttatgtg agcggatcct 400
ggactatagt gttcacgctg agcgcaaggg ctactgaga tatgccaaag 450
gtcagagtca gaccatggca aactgaaag gcctagtga gaaggggggtg 500
aaggtggatc tggggatccc tctggagctt tgggatgagc ccagcgtgga 550
ggtcacatac ctcaagaagc agtgtgagac catgttggag gagtttgaag 600
acattgtggg agactggtac ttccaccatc aggagcagcc cctacaaaat 650
tttctctgtg aaggtcatgt gctcccagct gctgaaactg catgtctaca 700
ggaaacttgg actggaaagg agatcacaga tggggaagag aaaacagaag 750
gggaggaaga gcaggaggag gaggaggaag aggaggaaga ggaaggggga 800
gacaagatga ccaagacagg aagccacccc aaacttgacc gagaagatct 850
ttgacccttg cctttgagcc ccaggaggg gaagggatca tggagagccc 900
tctaaagcct gcactctccc tgctccacag ctttcagggt gtgtttatga 950
gtgactccac ccaagcttgt agctgttctc tccatctaa cctcaggcaa 1000
gatcctggtg aaacagcatg acatggcttc tggggtggag ggtgggggtg 1050
gaggctctgc tctagagat gaactctatc cagcccccta attggcaggt 1100

gtatgtgctg acagtactga aagctttcct ctttaactga tcccaccccc 1150
 acccaaaagt cagcagtggc actggagctg tgggctttgg ggaagtcact 1200
 tagctcctta aggtctgttt ttagaccctt ccaaggaaga ggccagaacg 1250
 gacattctct gcgatctata tacattgcct gtatccagga ggctacacac 1300
 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350
 gataatttag gtgggataga tacttgggtct acttaagctc aatgtaacc 1400
 agagcccacc atatagtttt ataggtgctc aactttctat atcgctatta 1450
 aacttttttc tttttttcta 1470

<210> 59
 <211> 248
 <212> PRT
 <213> Homo Sapien

<400> 59
 Met Gly Pro Val Arg Leu Gly Ile Leu Leu Phe Leu Phe Leu Ala
 1 5 10 15
 Val His Glu Ala Trp Ala Gly Met Leu Lys Glu Glu Asp Asp Asp
 20 25 30
 Thr Glu Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Leu Leu Ser
 35 40 45
 Thr Glu Leu Gln Ala Glu Leu Ser Arg Thr Gly Arg Ser Arg Glu
 50 55 60
 Val Leu Glu Leu Gly Gln Val Leu Asp Thr Gly Lys Arg Lys Arg
 65 70 75
 His Val Pro Tyr Ser Val Ser Glu Thr Arg Leu Glu Glu Ala Leu
 80 85 90
 Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr Ser Val His Ala Glu
 95 100 105
 Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln Ser Gln Thr Met
 110 115 120
 Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys Val Asp Leu
 125 130 135
 Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu Val Thr
 140 145 150
 Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Glu Phe Glu Asp
 155 160 165
 Ile Val Gly Asp Trp Tyr Phe His His Gln Glu Gln Pro Leu Gln
 170 175 180

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
				185					190					195
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
				200					205					210
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu
				215					220					225
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His
				230					235					240
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
				245										

<210> 60
 <211> 890
 <212> DNA
 <213> Homo Sapien

<400> 60
 aagtacttgt gtccgggtgg tggactggat tagctgcgga gccctggaag 50
 ctgcctgtcc ttctccctgt gcttaaccag aggtgcccat gggttggaca 100
 atgaggctgg tcacagcagc actgttactg ggtctcatga tggtggtcac 150
 tggagacgag gatgagaaca gcccggtgtgc ccatgaggcc ctcttggaac 200
 aggacaccct cttttgccag ggccctgaag ttttctaccc agagttgggg 250
 aacattggct gcaagggtgt tcctgattgt aacaactaca gacagaagat 300
 cacctcctgg atggagccga tagtcaagtt cccggggggcc gtggacggcg 350
 caacctatat cctggtgatg gtggatccag atgccctag cagagcagaa 400
 cccagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450
 cgacctgaag aaaggaaga ttcagggcca ggagttatca gcctaccagg 500
 ctccctcccc accggcacac agtggcttcc atcgctacca gttctttgtc 550
 tatcttcagg aaggaaaagt catctctctc cttcccaagg aaaacaaaac 600
 tcgaggctct tggaaaatgg acagatttct gaaccgcttc cacctgggcg 650
 aacctgaagc aagcaccagc ttcattgacc agaactacca ggactcacca 700
 accctccagg ctcccagagg aaggggcagc gagcccaagc acaaaaccag 750
 gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800
 ccacactgct caccaccgac gatgtgggta tggaaccccc tctggataca 850
 gaacccttc ttttccaaat taaaaaaaaa aatcatcaaa 890

<210> 61

<211> 223
 <212> PRT
 <213> Homo Sapien

<400> 61

Met	Gly	Trp	Thr	Met	Arg	Leu	Val	Thr	Ala	Ala	Leu	Leu	Leu	Gly	1	5	10	15
Leu	Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	20	25	30	
Ala	His	Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	35	40	45	
Leu	Glu	Val	Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	50	55	60	
Val	Pro	Asp	Cys	Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	65	70	75	
Glu	Pro	Ile	Val	Lys	Phe	Pro	Gly	Ala	Val	Asp	Gly	Ala	Thr	Tyr	80	85	90	
Ile	Leu	Val	Met	Val	Asp	Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	95	100	105	
Arg	Gln	Arg	Phe	Trp	Arg	His	Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	110	115	120	
Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile	Gln	Gly	Gln	Glu	Leu	Ser	Ala	125	130	135	
Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His	Ser	Gly	Phe	His	Arg	Tyr	140	145	150	
Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys	Val	Ile	Ser	Leu	Leu	155	160	165	
Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys	Met	Asp	Arg	Phe	170	175	180	
Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser	Thr	Gln	Phe	185	190	195	
Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala	Pro	Arg	200	205	210	
Gly	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Thr	Arg	Gln	Arg	215	220				

<210> 62
 <211> 1321
 <212> DNA
 <213> Homo Sapien

<400> 62

gtcgacccac gcgctccgaag ctgctggagc cagcattcag tcccctggac 50

ttagataaa gaccctttct tgccagggtgc tgagacaacc acactatgag 100
 aggcactcca ggagacgctg atggtggagg aagggccgctc tatcaatcaa 150
 tcaactgttg tggtatcaca tgcaagtatc cagaggctct tgagcaaggc 200
 agaggggatc ccattttatt gggaatccag aatccagaaa tgtgtttgta 250
 ttgtgagaag gttggagaac agcccacatt gcagctaaaa gagcagaaga 300
 tcatggatct gtatggccaa cccgagcccg tgaaaccctt ccttttctac 350
 cgtgccaaaga ctggtaggac ctccaccctt gagtctgtgg ccttcccga 400
 ctggttcatt gctcctcca agagagacca gcccatcatt ctgacttcag 450
 aacttgggaa gtcatacaac actgcctttg aattaaatat aaatgactga 500
 actcagccta gaggtggcag cttggtcttt gtcttaaagt ttctggttcc 550
 caatgtgttt tctgtacat tttcttagtg tcattttcac gctggtgctg 600
 agacaggagc aaggctgctg ttatcatctc attttataat gaagaagaag 650
 caattacttc atagcaactg aagaacagga tgtggcctca gaagcaggag 700
 agctgggttg tataaggctg tcctctcaag ctggtgctgt gtaggccaca 750
 aggcactctgc atgagtgact ttaagactca aagaccaaac actgagcttt 800
 cttctagggg tgggtatgaa gatgcttcag agctcatgcg cgttaccac 850
 gatggcatga ctagcacaga gctgatctct gtttctgttt tgctttattc 900
 cctcttggga tgatatcatc cagtctttat atgttgccaa tatacctcat 950
 tgtgtgtaat agaaccctct tagcattaag accttgtaaa caaaaataat 1000
 tcttgggggtg ggtatgaaga tgcttcagag ctcatgcgcg ttaccacga 1050
 tggcatgact agcacagagc tgatctctgt ttctgttttg ctttattccc 1100
 tcttgggatg atatcatcca gtctttatat gttgccaata tacctcattg 1150
 tgtgtaatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200
 ttgtgttaag ttaaatcatt tttgtcctaa ttgtaatgtg taatcttaaa 1250
 gttaaataaa ctttgtgtat ttatataata ataaagctaa aactgatata 1300
 aaataaagaa agagtaaact g 1321

<210> 63
 <211> 134
 <212> PRT
 <213> Homo Sapien
 <400> 63

Met Arg Gly Thr Pro Gly Asp Ala Asp Gly Gly Gly Arg Ala Val
 1 5 10 15
 Tyr Gln Ser Ile Thr Val Ala Val Ile Thr Cys Lys Tyr Pro Glu
 20 25 30
 Ala Leu Glu Gln Gly Arg Gly Asp Pro Ile Tyr Leu Gly Ile Gln
 35 40 45
 Asn Pro Glu Met Cys Leu Tyr Cys Glu Lys Val Gly Glu Gln Pro
 50 55 60
 Thr Leu Gln Leu Lys Glu Gln Lys Ile Met Asp Leu Tyr Gly Gln
 65 70 75
 Pro Glu Pro Val Lys Pro Phe Leu Phe Tyr Arg Ala Lys Thr Gly
 80 85 90
 Arg Thr Ser Thr Leu Glu Ser Val Ala Phe Pro Asp Trp Phe Ile
 95 100 105
 Ala Ser Ser Lys Arg Asp Gln Pro Ile Ile Leu Thr Ser Glu Leu
 110 115 120
 Gly Lys Ser Tyr Asn Thr Ala Phe Glu Leu Asn Ile Asn Asp
 125 130

<210> 64
 <211> 999
 <212> DNA
 <213> Homo Sapien

<400> 64
 gcgaggctgc accagcgcct ggcaccatga ggacgcctgg gcctctgccc 50
 gtgctgctgc tgctcctggc gggagcccc gccgcgcggc ccaactcccc 100
 gacctgctac tcccgcatgc gggccctgag ccaggagatc acccgcgact 150
 tcaacctcct gcaggctctg gagccctcgg agccatgtgt gagatacctg 200
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250
 ggactttgtg gcctcgcccc cgtgttgga agtgggcccag gtagattcct 300
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350
 agagatttgg tattcctggt ggatgactgc aatgccttgg aatacccaat 400
 cccagtgact acggtcctgc cagatcgtca gcgctaaggg aactgagacc 450
 agagaaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500
 gggccagagc catgacctc acaggctcttg tgtagttgt atctgaaact 550
 gttatgtatc tctctacctt ctggaaaaca gggctggtat tcttaccag 600
 gaacctcctt tgagcataga gttagcaacc atgcttctca ttcccttgac 650

tcattgtcttg ccaggatggt tagatacaca gcatgttgat ttggtcacta 700
 aaaagaagaa aaggactaac aagcttcact tttatgaaca actatattga 750
 gaacatgcac aatagtatgt ttttattact gggttaatgg agtaatggta 800
 cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
 tatgcctttt totaacacag actttcttca ctgtctttca tttaaaaaga 900
 aattaatgct cttaagatat atattttacg tagtgctgac aggaccact 950
 ctttcattga aaggtgatga aaatcaaata aagaatctct tcacatgga 999

<210> 65
 <211> 136
 <212> PRT
 <213> Homo Sapien

<400> 65
 Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Leu Ala
 1 5 10 15
 Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
 20 25 30
 Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
 35 40 45
 Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
 50 55 60
 Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
 65 70 75
 Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
 80 85 90
 Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
 95 100 105
 Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
 110 115 120
 Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
 125 130 135

Arg

<210> 66
 <211> 1893
 <212> DNA
 <213> Homo Sapien

<400> 66
 gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

tctacctgga gacttgactc ccgcgcgccc caaccctgct tatcccttga 100
 ccgtcgagtg tcagagatcc tgcagccgcc cagtccgggc ccctctcccg 150
 cccacacccc accctcctgg ctcttctgtg ttttactcct ccttttcatt 200
 cataacaaaa gctacagctc caggagccca gcgcgggget gtgacccaag 250
 ccgagcgtgg aagaatgggg ttctcggga ccggcacttg gattctggtg 300
 ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaaagaca 350
 atctctacat aatagagaat taagtgcaga aagaccttg aatgaacaga 400
 ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
 aagccaggtc agagcaacta ttcttttggt gataacttga acctgctaaa 500
 ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
 gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600
 aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
 taaatttcaa gatgatccag atggtcttca tcaactagac gggactcctt 700
 taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750
 aatgacagag ccgtgtttga caagattggt tctaaactac ttaatctcgg 800
 ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
 ttttacaaaa attaattctca aaggaagcca acaattatga ggaggatccc 900
 aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
 agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000
 atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050
 actaaaacct acagtgaaga caactttgag gaactccaat atttcccaaa 1100
 tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
 aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
 atggtgaaat atggaacaat atctccagaa gaagggtgtt cctaccttga 1250
 aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
 atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350
 catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
 atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
 gaaagacaga tgaacccaaa ggaaaaacag aagcctattt ggaagccatc 1500

agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650
 cgcatttata gcagcctgta aaaatggcaa aagatccagg agtctttcaa 1700
 ctgtttcaga aaacataata tagcttaaaa cacttctaata tctgtgatta 1750
 aaatTTTTTg acccaagggg tattagaaag tgctgaattt acagtagtta 1800
 accttttaca agtgggttaa acatagcttt cttcccgtaa aaactatctg 1850
 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

<210> 67
 <211> 468
 <212> PRT
 <213> Homo Sapien

<400> 67
 Met Gly Phe Leu Gly Thr Gly Thr Trp Ile Leu Val Leu Val Leu
 1 5 10 15
 Pro Ile Gln Ala Phe Pro Lys Pro Gly Gly Ser Gln Asp Lys Ser
 20 25 30
 Leu His Asn Arg Glu Leu Ser Ala Glu Arg Pro Leu Asn Glu Gln
 35 40 45
 Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro
 50 55 60
 Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu
 65 70 75
 Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu
 80 85 90
 Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val
 95 100 105
 Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr
 110 115 120
 Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro
 125 130 135
 Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp
 140 145 150
 Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg
 155 160 165
 Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu
 170 175 180

Ile Thr Glu Ser	Gln Ala His Thr Leu	Glu Asp Glu Val Ala Glu	185	190	195
Val Leu Gln Lys	Leu Ile Ser Lys Glu	Ala Asn Asn Tyr Glu Glu	200	205	210
Asp Pro Asn Lys	Pro Thr Ser Trp Thr	Glu Asn Gln Ala Gly Lys	215	220	225
Ile Pro Glu Lys	Val Thr Pro Met Ala	Ala Ile Gln Asp Gly Leu	230	235	240
Ala Lys Gly Glu	Asn Asp Glu Thr Val	Ser Asn Thr Leu Thr Leu	245	250	255
Thr Asn Gly Leu	Glu Arg Arg Thr Lys	Thr Tyr Ser Glu Asp Asn	260	265	270
Phe Glu Glu Leu	Gln Tyr Phe Pro Asn	Phe Tyr Ala Leu Leu Lys	275	280	285
Ser Ile Asp Ser	Glu Lys Glu Ala Lys	Glu Lys Glu Thr Leu Ile	290	295	300
Thr Ile Met Lys	Thr Leu Ile Asp Phe	Val Lys Met Met Val Lys	305	310	315
Tyr Gly Thr Ile	Ser Pro Glu Glu Gly	Val Ser Tyr Leu Glu Asn	320	325	330
Leu Asp Glu Met	Ile Ala Leu Gln Thr	Lys Asn Lys Leu Glu Lys	335	340	345
Asn Ala Thr Asp	Asn Ile Ser Lys Leu	Phe Pro Ala Pro Ser Glu	350	355	360
Lys Ser His Glu	Glu Thr Asp Ser Thr	Lys Glu Glu Ala Ala Lys	365	370	375
Met Glu Lys Glu	Tyr Gly Ser Leu Lys	Asp Ser Thr Lys Asp Asp	380	385	390
Asn Ser Asn Pro	Gly Gly Lys Thr Asp	Glu Pro Lys Gly Lys Thr	395	400	405
Glu Ala Tyr Leu	Glu Ala Ile Arg Lys	Asn Ile Glu Trp Leu Lys	410	415	420
Lys His Asp Lys	Lys Gly Asn Lys Glu	Asp Tyr Asp Leu Ser Lys	425	430	435
Met Arg Asp Phe	Ile Asn Lys Gln Ala	Asp Ala Tyr Val Glu Lys	440	445	450
Gly Ile Leu Asp	Lys Glu Glu Ala Glu	Ala Ile Lys Arg Ile Tyr	455	460	465
Ser Ser Leu					

<210> 68
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 68
cgtcacagga acttcagcac cc 22

<210> 69
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 69
gtcttggtt cctccaggtt tgg 23

<210> 70
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
ggacagcgct cccctctacc tggagacttg actcccg 38

<210> 71
<211> 2379
<212> DNA
<213> Homo Sapien

<400> 71
gttgctcgg cggcgctcgg ggaggagcc agcagcctag ggcctaggcc 50
cgggccacca tggcgctgcc tccaggccca gccgccctcc ggcacacact 100
gctgctcctg ccagcccttc tgagctcagg ttggggggag ttggagccac 150
aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200
cacgccttca cctgccgggt ggcagggggg cctggcacc ccagattggc 250
ctggtatctg gatggacagc tgcaggaggc cagcacctca agactgctga 300
gcgtgggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350
gcccatcggg cccagcatga gctcaactgc tctctgcagg accccagaag 400
tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgccca agtcggcgcc aagtagcagg aagctcaggg cccaggcctc 500
 ctgggtgtcc tgtttgccct ggtgctgccc aaccgcccgg ccaatgtcac 550
 ctggatcgac caggatgggc cagtgactgt caacacctct gacttcctgg 600
 tgctggatgc gcagaactac ccctggctca ccaaccacac ggtgcagctg 650
 cagctccgca gcctggcaca caacctctcg gtggtggcca ccaatgacgt 700
 ggggtgtcacc agtgcgtcgc ttccagcccc aggccctcc cggcaccat 750
 ctctgatatc aagtgactcc aacaacctaa aactcaacaa cgtgcgcctg 800
 ccacgggaga acatgtccct cccgtccaac ctccagctca atgacctcac 850
 tccagattcc agagcagtga aaccagcaga ccggcagatg gctcagaaca 900
 acagccggcc agagcttctg gaccgggagc ccggcggcct cctcaccagc 950
 caaggtttca tccgcctccc agtgcctgggc tatatctatc gagtgtccag 1000
 cgtgagcagt gatgagatct ggctctgagc cgagggcgag acaggagtat 1050
 tctcttggcc tctggacacc ctcccattcc tccaaggcat cctctaccta 1100
 gctaggtcac caacgtgaag aagttatgcc actgccactt ttgcttgccc 1150
 tcctggctgg ggtgccctcc atgtcatgca cgtgatgcat ttcactgggc 1200
 tgtaaccgcg aggggcacag gtatcttttg caaggctacc agttggacgt 1250
 aagcccctca tgctgactca ggggtgggccc tgcattgtat gactgggccc 1300
 ttccagaggg agctcttttg ccaggggtgt tcagatgtca tccagcatcc 1350
 aagtgtggca tggcctgctg tataccccac ccagtagctc cacagcacct 1400
 tgtacagtag gcatgggggc gtgcctgtgt gggggacagg gagggccctg 1450
 catggatttt cctccttcc atgctatgta gccttggtcc ctcaggtaaa 1500
 atttaggacc ctgctagctg tgcagaacct aattgccctt tgcacagaaa 1550
 ccaaccctg acccagcggg accggccaag cacaacgctc ctttttgctg 1600
 cacacgtctc tgcccttcac ttcttctctt ctgtcccccac ctccctcttg 1650
 gaattctagg ttacacgttg gaccttctct actacttcac tgggcactag 1700
 acttttctat tggcctgtgc catcgcccag tattagcaca agttagggag 1750
 gaagaggcag gcgatgagtc tagtagcacc caggacggct tgtagctatg 1800
 catcattttc ctacggcgtt agcactttaa gcacatcccc taggggaggg 1850
 ggtgagttag gggcccagag cctcttttgt ggcttcccca cgtttggcct 1900

tctgggattc actgtgagtg tcctgagctc tcgggggttga tggtttttct 1950
ctcagcatgt ctcctccacc acgggacccc agccctgacc aacccatggt 2000
tgcctcatca gcaggaaggt gcccttcctg gaggatgggc gccacaggca 2050
cataattcaa cagtgtggaa gctttagggg aacatggaga aagaaggaga 2100
ccacataccc caaagtgacc taagaacact ttaaaaagca acatgtaaat 2150
gattggaaat taatatagta cagaatatat ttttcccttg ttgagatctt 2200
cttttgtaat gtttttcatg ttactgccta gggcgggtgct gagcacacag 2250
caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72
<211> 322
<212> PRT
<213> Homo Sapien

<400> 72
Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu
1 5 10 15
Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro
20 25 30
Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn
35 40 45
Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr
50 55 60
Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser
65 70 75
Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly
80 85 90
Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu
95 100 105
Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala
110 115 120
Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val
125 130 135
Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val
140 145 150
Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp
155 160 165

Ile	Asp	Gln	Asp	Gly	Pro	Val	Thr	Val	Asn	Thr	Ser	Asp	Phe	Leu
				170					175					180
Val	Leu	Asp	Ala	Gln	Asn	Tyr	Pro	Trp	Leu	Thr	Asn	His	Thr	Val
				185					190					195
Gln	Leu	Gln	Leu	Arg	Ser	Leu	Ala	His	Asn	Leu	Ser	Val	Val	Ala
				200					205					210
Thr	Asn	Asp	Val	Gly	Val	Thr	Ser	Ala	Ser	Leu	Pro	Ala	Pro	Gly
				215					220					225
Pro	Ser	Arg	His	Pro	Ser	Leu	Ile	Ser	Ser	Asp	Ser	Asn	Asn	Leu
				230					235					240
Lys	Leu	Asn	Asn	Val	Arg	Leu	Pro	Arg	Glu	Asn	Met	Ser	Leu	Pro
				245					250					255
Ser	Asn	Leu	Gln	Leu	Asn	Asp	Leu	Thr	Pro	Asp	Ser	Arg	Ala	Val
				260					265					270
Lys	Pro	Ala	Asp	Arg	Gln	Met	Ala	Gln	Asn	Asn	Ser	Arg	Pro	Glu
				275					280					285
Leu	Leu	Asp	Pro	Glu	Pro	Gly	Gly	Leu	Leu	Thr	Ser	Gln	Gly	Phe
				290					295					300
Ile	Arg	Leu	Pro	Val	Leu	Gly	Tyr	Ile	Tyr	Arg	Val	Ser	Ser	Val
				305					310					315
Ser	Ser	Asp	Glu	Ile	Trp	Leu								
				320										

<210> 73
 <211> 843
 <212> DNA
 <213> Homo Sapien

<400> 73
 cggggacgga agcgggccct gggcccagagg ggctggagcc gggccggggc 50
 gatgtggagc gcgggcccgc ggggggctgc ctggccggtg ctgttggggc 100
 tgctgctggc gctgttagtg ccgggcggtg gtgccgcaa gaccggtgcg 150
 gagctcgtga cctgcgggtc ggtgctgaag ctgctcaata cgcaccaccg 200
 cgtgcggctg cactcgcacg acatcaaata cggatccggc agcggccagc 250
 aatcggtgac cggcgtagag gcgtcggacg acgccaatag ctactggcgg 300
 atccgcggcg gctcggaggg cgggtgcccg cgcggtccc cggtgcgctg 350
 cgggcaggcg gtgaggctca cgcattgtgt tacgggcaag aacctgcaca 400
 cgcaccactt cccgtcgccg ctgtccaaca accaggaggt gagtgccttt 450
 ggggaagacg gcgagggcga cgacctggac ctatggacag tgcgtgctc 500

tggacagcac tgggagcgtg aggctgctgt gcgcttccag catgtgggca 550
 cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600
 gggcagcatg aggtccacgg catgccagc gccaacacgc acaatacgtg 650
 gaaggccatg gaaggcatct tcatcaagcc tagtgtggag ccctctgcag 700
 gtcacgatga actctgagtg tgtggatgga tgggtggatg gaggggtggca 750
 ggtggggcgt ctgcagggcc actcttggca gagactttgg gttttaggg 800
 gtcctcaagt gcctttgtga ttaaagaatg ttggtctatg aaa 843

<210> 74
 <211> 221
 <212> PRT
 <213> Homo Sapien

<400> 74

Met	Trp	Ser	Ala	Gly	Arg	Gly	Gly	Ala	Ala	Trp	Pro	Val	Leu	Leu	1	5	10	15
Gly	Leu	Leu	Leu	Ala	Leu	Leu	Val	Pro	Gly	Gly	Gly	Ala	Ala	Lys	20	25	30	
Thr	Gly	Ala	Glu	Leu	Val	Thr	Cys	Gly	Ser	Val	Leu	Lys	Leu	Leu	35	40	45	
Asn	Thr	His	His	Arg	Val	Arg	Leu	His	Ser	His	Asp	Ile	Lys	Tyr	50	55	60	
Gly	Ser	Gly	Ser	Gly	Gln	Gln	Ser	Val	Thr	Gly	Val	Glu	Ala	Ser	65	70	75	
Asp	Asp	Ala	Asn	Ser	Tyr	Trp	Arg	Ile	Arg	Gly	Gly	Ser	Glu	Gly	80	85	90	
Gly	Cys	Pro	Arg	Gly	Ser	Pro	Val	Arg	Cys	Gly	Gln	Ala	Val	Arg	95	100	105	
Leu	Thr	His	Val	Leu	Thr	Gly	Lys	Asn	Leu	His	Thr	His	His	Phe	110	115	120	
Pro	Ser	Pro	Leu	Ser	Asn	Asn	Gln	Glu	Val	Ser	Ala	Phe	Gly	Glu	125	130	135	
Asp	Gly	Glu	Gly	Asp	Asp	Leu	Asp	Leu	Trp	Thr	Val	Arg	Cys	Ser	140	145	150	
Gly	Gln	His	Trp	Glu	Arg	Glu	Ala	Ala	Val	Arg	Phe	Gln	His	Val	155	160	165	
Gly	Thr	Ser	Val	Phe	Leu	Ser	Val	Thr	Gly	Glu	Gln	Tyr	Gly	Ser	170	175	180	
Pro	Ile	Arg	Gly	Gln	His	Glu	Val	His	Gly	Met	Pro	Ser	Ala	Asn	185	190	195	

Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro
 200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu
 215 220

<210> 75

<211> 1049

<212> DNA

<213> Homo Sapien

<400> 75

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 ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150
 ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200
 tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
 gctttgggaa ttccaaagta ctgagtgag agagggtgtt caggagccgt 300
 agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350
 gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400
 ccaaagcctg gacaccctg gagcatcttg tgggattgga agacgtcacg 450
 gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc tgaaatagac 500
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 gtactgcatg gatcctgccg tgatcgctgg tgtcttgtcc aggaagtctc 600
 ccggtgacaa aattctggtc aacatgggag ataggactag catggtgcag 650
 gaccctggct ctcaagctcc cacatcctgg attagtgagt ctgaggtttc 700
 ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750
 ttccaacctg gaccctgac cagtacctga gaggtggact ctgtgcctac 800
 agtgggggtg ctggctatgt ccgaagcagc caggacctga gctgtgactt 850
 ctgcaatgat gtccttgac gagccaagta cctcaagaga catggcttct 900
 aacatctcag atgaaacca agaccatgat cacatatgca gcctcaaatg 950
 ttacacagat aaaactagcc aagggcacct gtaactggga atctgagttt 1000
 gacctaaaag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76

<211> 194

<212> PRT

<213> Homo Sapien

<400> 76

Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Asp
1 5 10 15
Leu Ser Glu Ser Ser Asn Trp Gly Cys Tyr Gly Asn Ile Gln Ser
20 25 30
Leu Asp Thr Pro Gly Ala Ser Cys Gly Ile Gly Arg Arg His Gly
35 40 45
Leu Asn Tyr Cys Gly Val Arg Ala Ser Glu Arg Leu Ala Glu Ile
50 55 60
Asp Met Pro Tyr Leu Leu Lys Tyr Gln Pro Met Met Gln Thr Ile
65 70 75
Gly Gln Lys Tyr Cys Met Asp Pro Ala Val Ile Ala Gly Val Leu
80 85 90
Ser Arg Lys Ser Pro Gly Asp Lys Ile Leu Val Asn Met Gly Asp
95 100 105
Arg Thr Ser Met Val Gln Asp Pro Gly Ser Gln Ala Pro Thr Ser
110 115 120
Trp Ile Ser Glu Ser Gln Val Ser Gln Thr Thr Glu Val Leu Thr
125 130 135
Thr Arg Ile Lys Glu Ile Gln Arg Arg Phe Pro Thr Trp Thr Pro
140 145 150
Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly Ala
155 160 165
Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn
170 175 180
Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe
185 190

<210> 77

<211> 899

<212> DNA

<213> Homo Sapien

<400> 77

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gtctcagctg acattcgtg tcaactcctgc tacaaggctc ctgtgctggg 150
ctgtgtggac cggcagtcct gccgcctgga gccaggacag caatgcctga 200
caacacatgc ataccttggt aagatgtggg ttttctccaa tctgcgctgt 250
ggcacaccag aagagccctg tcaggaggcc ttcaaccaa ccaaccgcaa 300

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gcgcaggacc ccggcccaact ccagccctgg gccttgtctt ccttacctcc 400
ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450
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atccccctggc ttacagaat cgtctctccc tagctcccat ttctttaatt 550
aaacactggt ccgagtgggc tcctcatcca tccttcccac ctacacacct 600
tcactctctt tttctgggt cccttcccac ttcttccag gacctccatt 650
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ccagtgaagg ctcccacaag gacctgatga cctcactgta cagagctgac 800
tccccaaacc caggctccca tatgtacccc atccccata ctacaccttt 850
tccattttga gtaataaatg tctgagtctg gaaaaaaaaa aaaaaaaaaa 899

<210> 78
<211> 125
<212> PRT
<213> Homo Sapien

<400> 78
Met Lys Ala Leu Met Leu Leu Thr Leu Ser Val Leu Leu Cys Trp
1 5 10 15
Val Ser Ala Asp Ile Arg Cys His Ser Cys Tyr Lys Val Pro Val
20 25 30
Leu Gly Cys Val Asp Arg Gln Ser Cys Arg Leu Glu Pro Gly Gln
35 40 45
Gln Cys Leu Thr Thr His Ala Tyr Leu Gly Lys Met Trp Val Phe
50 55 60
Ser Asn Leu Arg Cys Gly Thr Pro Glu Glu Pro Cys Gln Glu Ala
65 70 75
Phe Asn Gln Thr Asn Arg Lys Leu Gly Leu Thr Tyr Asn Thr Thr
80 85 90
Cys Cys Asn Lys Asp Asn Cys Asn Ser Ala Gly Pro Arg Pro Thr
95 100 105
Pro Ala Leu Gly Leu Val Phe Leu Thr Ser Leu Ala Gly Leu Gly
110 115 120
Leu Trp Leu Leu His
125

<210> 79

<211> 1977
<212> DNA
<213> Homo Sapien

<400> 79

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tagctgcgca gcgtcgcgcg cgctaccgca cccaggttcg gcccgtaggc 150
gtctggcagc ccggcgccat ctcatcgag cgccatggcc gcagcctgcg 200
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250
ctgaccgcgg gcctgccct gggctggaac gaccctgaca gaatgttgct 300
gcgggatgta aaagctctta ccctccacta tgaccgctat accacctccc 350
gcaggctgga tcccatccca cagttgaaat gtgttgagg cacagctggt 400
tgtgattctt ataccccaaa agtcatacag tgtcagaaca aaggctggga 450
tgggtatgat gtacagtggg aatgtaagac ggacttagat attgcataca 500
aatttgaaa aactgtggtg agctgtgaag gctatgagtc ctctgaagac 550
cagtatgtac taagagggtc ttgtggcttg gagtataatt tagattatac 600
agaacttggc ctgcagaaac tgaaggagtc tggaaagcag cacggccttg 650
cctctttctc tgattattat tataagtggc cctcggcgga ttctgtaac 700
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atgaaaattc aggaccaggg ttctggacag gcttggaac tgggtggaata 1000
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cttactcacc ccttcatgga ggctcgggca gctattcggg atgttcaaac 1150
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ataaagtaga aagttggagt caaacactgg atgcagaaat tttggatttt 1250
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aggggatatt caaaagttct gtggtgttat gtccagtgtg gctttttgtg 1350

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 aggttggtgt gaatgactct gtgctggcaa aaatgcttga aacctctata 1850
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<210> 80
 <211> 339
 <212> PRT
 <213> Homo Sapien

<400> 80
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 1 5 10 15
 Leu Gly Leu His Leu Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly
 20 25 30
 Trp Asn Asp Pro Asp Arg Met Leu Leu Arg Asp Val Lys Ala Leu
 35 40 45
 Thr Leu His Tyr Asp Arg Tyr Thr Thr Ser Arg Arg Leu Asp Pro
 50 55 60
 Ile Pro Gln Leu Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser
 65 70 75
 Tyr Thr Pro Lys Val Ile Gln Cys Gln Asn Lys Gly Trp Asp Gly
 80 85 90
 Tyr Asp Val Gln Trp Glu Cys Lys Thr Asp Leu Asp Ile Ala Tyr
 95 100 105
 Lys Phe Gly Lys Thr Val Val Ser Cys Glu Gly Tyr Glu Ser Ser
 110 115 120
 Glu Asp Gln Tyr Val Leu Arg Gly Ser Cys Gly Leu Glu Tyr Asn
 125 130 135

Leu	Asp	Tyr	Thr	Glu	Leu	Gly	Leu	Gln	Lys	Leu	Lys	Glu	Ser	Gly	140	145	150
Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp	Tyr	Tyr	Tyr	Lys	Trp	155	160	165
Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu	Ile	Thr	Ile	Val	170	175	180
Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu	Phe	Leu	Ser	185	190	195
Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro	Pro	Phe	200	205	210
Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro	Pro	215	220	225
Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His	230	235	240
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly	245	250	255
Tyr	Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly	260	265	270
Gly	Ile	Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro	275	280	285
Phe	Ser	Asp	Ser	Trp	Tyr	Tyr	Pro	Ser	Tyr	Pro	Pro	Ser	Tyr	Pro	290	295	300
Gly	Thr	Trp	Asn	Arg	Ala	Tyr	Ser	Pro	Leu	His	Gly	Gly	Ser	Gly	305	310	315
Ser	Tyr	Ser	Val	Cys	Ser	Asn	Ser	Asp	Thr	Lys	Thr	Arg	Thr	Ala	320	325	330
Ser	Gly	Tyr	Gly	Gly	Thr	Arg	Arg	Arg							335		